In the Claims

1. (Previously Presented) A method for communicating between a communications device and a network system, the method comprising:

receiving a first request for a first communication service into a base station system over a wireless transmission link;

in response to receiving the first request, dynamically configuring a media access control (MAC) layer in the wireless transmission link for the requested first communication service by identifying a first number of channels of a section of channels of the MAC layer of the wireless transmission link for the requested first communication service;

receiving a second request for a second communication service into the base station system over the wireless transmission link wherein the second communication service is different from the first communication service;

determining if the second communication service has a higher priority than the first communication service;

in response to determining that the second communication service has a higher priority than the first communication service, dynamically configuring the MAC layer for the second communication service by identifying a second number of channels of the section of channels of the MAC layer and reducing the first number of channels of the MAC layer of the wireless transmission link for the first communication service;

generating and transmitting an instruction to provide the requested first communication service and the second communication service over the wireless transmission link using the dynamically configured MAC layer.

2. (Previously Canceled)

3. (Previously Presented) The method of claim 1 further comprising identifying the section of the MAC layer of the wireless transmission link for the requested first and second communication services by identifying a control family for the requested

communication services wherein the control family relates to the section of the MAC layer.

4 - 9. (Previously Canceled)

10. (Previously Presented) The method of claim 1 wherein determining if the second communication service has a higher priority than the first communication service further comprises prorating among communication services based on usage parameter control values.

11. (Previously Presented) The method of claim 1 wherein determining if the second communication service has a higher priority than the first communication service further comprises using first come first serve logic.

12. (Previously Presented) The method of claim 1 wherein determining if the second communication service has a higher priority than the first communication service further comprises using last come first serve logic.

13. (Previously Presented) The method of claim 1 wherein determining if the second communication service has a higher priority than the first communication service further comprises using fair queuing logic.

14. (Previously Presented) The method of claim 1 wherein determining if the second communication service has a higher priority than the first communication service further comprises using burst servicing logic.

15. (Previously Presented) The method of claim 1 wherein determining if the second communication service has a higher priority than the first communication service further comprises using time of expiry logic.

16. (Previously Presented) The method of claim 1 wherein the first communication service is voice communication.

17. (Previously Presented) The method of claim 1 wherein the first communication service is facsimile communication.

18. (Previously Presented) The method of claim 1 wherein the first communication service is modem communication.

19. (Previously Presented) The method of claim 1 wherein the first communication service is audio broadcast.

20. (Previously Presented) The method of claim 1 wherein the first communication service is world wide web browsing.

21. (Previously Presented) The method of claim 1 wherein the first communication service is file transfer.

22. (Previously Presented) The method of claim 1 wherein the first communication service is data transfer.

23. (Previously Presented) The method of claim 1 wherein the first communication service is a network game.

24. (Previously Presented) The method of claim 1 wherein the first communication service is chat room communication.

25. (Previously Presented) The method of claim 1 wherein the first communication service is e-mail.

26. (Previously Presented) The method of claim 1 wherein the first communication service is PUSH technology communication.

27. (Previously Presented) The method of claim 1 wherein the first communication service is desktop multimedia communication.

28. (Previously Presented) The method of claim 1 wherein the first communication service is video broadcast.

29. (Previously Presented) The method of claim 1 wherein the first communication service is video conferencing.

30. (Original) The method of claim 1 wherein dynamically configuring the MAC layer in the wireless transmission link is based on delivery requirements of communication services.

31. (Original) The method of claim 30 wherein the delivery requirement is time dependency.

32. (Original) The method of claim 30 wherein the delivery requirement is a need for real time communication.

33. (Original) The method of claim 30 wherein the delivery requirement is quality of service.

34. (Original) The method of claim 30 wherein the delivery requirement is traffic pattern.

35. (Original) The method of claim 30 wherein the delivery requirement is bandwidth.

36. (Original) The method of claim 30 wherein the delivery requirement is grade of service.

37. (Original) The method of claim 1 wherein the MAC layer of the wireless transmission link further comprises a fixed allocation sub frame and a dynamic allocation sub frame.

38. (Original) The method of claim 37 wherein the fixed allocation sub frame further comprises requests slots for reservation information.

39. (Original) The method of claim 37 wherein the fixed allocation sub frame further comprises constant bit rate slots for voice packets.

40. (Original) The method of claim 37 wherein the dynamic allocation sub frame further comprises variable bit rate slots for variable bit rate packets.

41. (Original) The method of claim 37 wherein the dynamic allocation sub frame further comprises data slots for data packets.

42. (Previously Presented) A software product comprising:

communication software operational when executed by a processor to direct the processor to receive a first request for a first communication service into a base station system over a wireless transmission link, in response to receiving the first request, dynamically configure a media access control (MAC) layer in the wireless transmission link for the requested service by identifying a first number of channels of a section of channels of the MAC layer of the wireless transmission link for the requested first communication service, receive a second request for a second communication service into the base station system over the wireless transmission link wherein the second communication service is different than the first communication service, determine if the second communication service has a higher priority than the first communication service, in response to determining that the second communication service has a higher priority than the first communication service, dynamically configure the MAC layer for the second communication service by identifying a second number of channels of the section of channels of the MAC layer and reducing the first number of channels of the MAC layer of the wireless transmission link for the first communication service, and generate and transmit an instruction to provide the requested first and second communication services over the wireless transmission link using the dynamically configured MAC layer; and

a software storage medium operational to store the communication software.

43. (Previously Canceled)

44. (Previously Presented) The software product of claim 42 wherein the communication software is operational when executed by the processor to direct the processor to identify the section of the MAC layer of the wireless transmission link for the requested first and second communication services by identifying a control family for the requested communication services wherein the control family relates to the section of the MAC layer.

45- 50. (Previously Canceled)

51. (Previously Presented) The software product of claim 42 wherein the communication software is operational when executed by the processor to direct the processor to prorate among communication services based on usage parameter control values to determine if the second communication service has a higher priority than the first communication service.

52. (Previously Presented) The software product of claim 42 wherein the communication software is operational when executed by the processor to direct the processor to use first come first serve logic to determine if the second communication service has a higher priority than the first communication service.

53. (Previously Presented) The software product of claim 42 wherein the communication software is operational when executed by the processor to direct the processor to use last come first serve logic to determine if the second communication service has a higher priority than the first communication service.

54. (Previously Presented) The software product of claim 42 wherein the communication software is operational when executed by the processor to direct the processor to use fair queuing logic to determine if the second communication service has a higher priority than the first communication service.

55. (Previously Presented) The software product of claim 42 wherein the communication software is operational when executed by the processor to direct the processor to use burst servicing logic to determine if the second communication service has a higher priority than the first communication service.

56. (Previously Presented) The software product of claim 42 wherein the communication software is operational when executed by the processor to direct the processor to use time of expiry logic to determine if the second communication service has a higher priority than the first communication service.

57. (Previously Presented) The software product of claim 42 wherein the communication service is voice communication.

58. (Previously Presented) The software product of claim 42 wherein the first communication service is facsimile communication.

59. (Previously Presented) The software product of claim 42 wherein the first communication service is modem communication.

60. (Previously Presented) The software product of claim 42 wherein the first communication service is audio broadcast.

61. (Previously Presented) The software product of claim 42 wherein the first communication service is world wide web browsing.

62. (Previously Presented) The software product of claim 42 wherein the first communication service is file transfer.

63. (Previously Presented) The software product of claim 42 wherein the first communication service is data transfer.

64. (Previously Presented) The software product of claim 42 wherein the first communication service is a network game.

65. (Previously Presented) The software product of claim 42 wherein the first communication service is chat room communication.

66. (Previously Presented) The software product of claim 42 wherein the first communication service is e-mail.

67. (Previously Presented) The software product of claim 42 wherein the first communication service is PUSH technology communication.

68. (Previously Presented) The software product of claim 42 wherein the first communication service is desktop multimedia communication.

69. (Previously Presented) The software product of claim 42 wherein the first communication service is video broadcast.

70. (Previously Presented) The software product of claim 42 wherein the first communication service is video conferencing.

71. (Original) The software product of claim 42 wherein the communication software is operational when executed by a processor to direct the processor to dynamically configure the MAC layer in the wireless transmission link based on delivery requirements of communication services.

72. (Original) The software product of claim 71 wherein the delivery requirement is time dependency.

73. (Original) The software product of claim 71 wherein the delivery requirement is a need for real time communication.

74. (Original) The software product of claim 71 wherein the delivery requirement is quality of service.

75. (Original) The software product of claim 71 wherein the delivery requirement is traffic pattern.

76. (Original) The software product of claim 71 wherein the delivery requirement is bandwidth.

77. (Original) The software product of claim 71 wherein the delivery requirement is grade of service.

78. (Original) The software product of claim 42 wherein the MAC layer of the wireless transmission link further comprises a fixed allocation sub frame and a dynamic allocation sub frame.

79. (Original) The software product of claim 78 wherein the fixed allocation sub frame further comprises requests slots for reservation information.

80. (Original) The software product of claim 78 wherein the fixed allocation sub frame further comprises constant bit rate slots for voice packets.

81. (Original) The software product of claim 78 wherein the dynamic allocation sub frame further comprises variable bit rate slots for variable bit rate packets.

82. (Original) The software product of claim 78 wherein the dynamic allocation sub frame further comprises data slots for data packets.

83. – 125. (Previously Canceled)